

Options for Closing the Gap on Forestry Management Measures

(Edits from Richard Whitman and Dick Pedersen)

(Additional couple of comments from W. Stelle)

(Comments Added by C. Psyk on 1/22/2015)

01/21/2015

Background/Context

EPA and NOAA have determined that Oregon's coastal zone management measures for forestry need to be strengthened in order to assure that forest lands are being managed to achieve clean water and healthy watershed conditions. This paper describes how Oregon may strengthen its forest management measures in ways that will achieve a healthy resilient coastal environment where forest management measures satisfy the Congressional objectives of the Coastal Zone Amendment Reauthorization Act (CZARA).

General CZARA Guidelines for Approval

There are two pathways for states to achieve an approvable program: 1) a *regulatory program*; and/or 2) a *voluntary approach*. A voluntary approach requires that the state of Oregon (State) provide the following:

- a description of the voluntary programs, including the methods for tracking and evaluating those programs Oregon will use to encourage implementation of the management measures;
- a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary; and
- a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing authorities where necessary, notwithstanding the statutory "BMP safe harbor" provision in the Forest Practices Act.

Options for Oregon to Strengthen its Forestry Management Measures to Satisfy the CZARA Requirements

- **Riparian Protection**
 - **Small and Medium Fish-Bearing Streams: State currently pursuing regulatory program:**

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- Current Deficiencies/Shortfall: Inadequate riparian protection for small and medium fish-bearing streams. Available data, including Ripstream Study data and analysis, shows that current Oregon Forest Practices Act measures do not ensure that forest operations meet the Oregon water quality narrative criterion for protecting cold water (PCW) in small and medium fish-bearing streams. Unlike the PCW criterion, the CZARA program requirements are not limited to waters currently inhabited by threatened or endangered salmonid fishes, so this deficiency in protecting existing cold water applies to all small and medium fish-bearing streams in the area covered by CZARA.
- State Actions Needed: 1) **Complete riparian rulemaking by July 1, 2016;** 2) Rule should be designed to meet the PCW criterion and other aspects of Oregon water quality standards in all current and historical salmon, steelhead and bull trout habitat. This may require changes to rules for stream reaches above these habitats (seen non-fish bearing streams below; and 3) The rule should also include a means to monitor whether it is succeeding in assuring that forest operations comply with the PCW criterion.
- **Non-Fish-Bearing Streams: State may pursue regulatory and/or voluntary approaches:**
 - Current Deficiencies/Shortfall: Current Oregon Forest Practices Act measures may not ensure that water quality in areas subject to forest operations comply with the Oregon water quality standards and protect beneficial uses. The state's measures should ensure that forest operations meet Oregon's water quality standards, including the temperature standard and the sediment standard, in the area covered by CZARA.
 - Examples of State Actions Needed: 1) **By July 1, 2016,** identify and adopt measures to ensure that the Oregon's water quality standards met and beneficial uses are protected, whether regulatory or voluntary (or a combination of both). 2) **By July 1, 2016,** identify and provide to NOAA and EPA the monitoring program associated with any voluntary measures, and the general authorities ODF and DEQ will rely on if voluntary measures are found to be inadequate to achieve the PCW standard on an ongoing basis. 3) **By July 1, 2016, Oregon must** demonstrate how it is showing compliance with elements of a voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs).
(<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).
- **Roads: Regulatory and/or voluntary approaches would need to address the following items:**
 - Current Deficiencies/Shortfall:

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- *Regulatory* - Recent rule changes and new policies do not sufficiently address water quality impairments associated with “legacy” roads, (i.e., roads that do not meet current State requirements with respect to siting, construction, maintenance, and road drainage) or impairments associated with the portion of the existing network where construction or reconstruction is not proposed.
- *Voluntary* – EPA and NOAA have determined that the current ODF voluntary program does not adequately address legacy roads, nor has the state satisfied all elements needed for a voluntary program (see above). The list below provides options for addressing this.
- Examples of State Actions Needed:
 - *Regulatory* – **By December 31, 2016**, establish regulations and or policies that address the above deficiencies. Or,
 - *Voluntary* – **By July 1, 2016**, 1) establish a road survey or inventory program that considers active, inactive, and legacy roads that have the potential to deliver sediment to streams (i.e., similar to WA’s and ID’s); 2) develop a ranking system to establish priorities for road repair or decommissioning; 3) develop a timeline for addressing road issues that impair water quality; and 4) develop a public reporting and tracking component to assess progress for remediating identified forest road problems.

For an effective voluntary approach, all are needed as a package. The state must also meet other elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA’s 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs
(<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).
- **Landslides: Regulatory and/or voluntary approach would need to address the following items: [To be clarified by EPA/NMFS re relation to LWD and sedimentation concerns]**
 - Current Deficiencies/Shortfall:
 - *Regulatory* - Oregon’s current rules protect for public safety against shallow, rapidly moving landslides. Oregon does not have additional management measures for forestry in place to protect high-risk landslide areas to ensure water quality standards are met and designated uses are protected. While a natural rate of landslides is not be preventable, and some may even be desirable to provide large woody debris to enhance habitat complexity and value, there needs to be a balanced program that

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prevents increases in the rate of human-induced landslides that adds excessive sediment to streams or degrades streams through debris flows, impairing water quality and blocking or impairing salmon habitat.

- *Voluntary* – The voluntary measure identified by the State gives landowners credit for leaving standing live trees in landslide prone slopes as an eventual source of large wood for fish-bearing streams. The State hasn't shown if this measure is effective in controlling the rate of human-induced landslides and debris flows, or how it monitors and tracks the implementation and effectiveness of this measure.

- Examples of State Actions Needed:

- *Regulatory* – **By [date certain], 1) Establish a program that includes a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff. Widely available maps of high-risk landslide areas could improve water quality by informing foresters during harvest planning.** Adopt similar harvest and road construction restrictions for all high-risk landslide prone areas with the potential to degrade water quality and designated uses, not just those where landslides pose risks to life and property.
- *Voluntary* – **By [date certain],** complete the following actions. 1) Establish a program that includes a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff. Widely available maps of high-risk landslide areas could improve water quality by informing foresters during harvest planning. 3) Adopt voluntary BMPs that include employing no-harvest restrictions on high-risk areas that can deliver sediment to streams or initiate debris flows, and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized. Develop procedures to monitor and track that voluntary BMPs are followed. Identify ODF and DEQ general authorities for enforcing changes when voluntary measures are not implemented;

For all voluntary programs, the State must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

- **Spray Buffers for Aerial Application of Herbicides on Non-Fish-Bearing Streams: regulatory and/or voluntary approaches that could be established include the following items: [To be clarified by NMFS re why FIFRA isn't already adequate].**

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- Current Deficiencies/Shortfall:
 - *Regulatory* - Oregon does not have a spray buffer to protect non-fish-bearing streams when herbicides are aerially applied.
 - *Voluntary* – There are no voluntary spray buffers nor is there monitoring and tracking on non-fish-bearing streams.
- Examples of State Actions Needed: The State should establish a process to track, monitor and verify that FIFRA requirements are being followed when herbicides are applied to all streams, including small non-fish-bearing streams where currently there are no vegetation requirements in the Coast Range to protect against overspray and drift. The following are options to achieve this:
 - *Regulatory* – **By [date certain]**, adopt rules for aerial herbicide spray buffers for small, non-fish-bearing streams; OR
 - *Voluntary* – **By [date certain]**, 1) develop guidelines to retain vegetation around small non-fish-bearing streams; 2) monitor and track that voluntary guidelines are followed 3) identify ODF and DEQ general authorities for enforcing changes when voluntary measures are not implemented; and 4) revise the ODF Notification of Operation form to explicitly include that aerial applicators will adhere to FIFRA labels, especially for herbicides that are prohibited from use in/above waterbodies, for all stream types, including non-fish-bearing streams.

For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

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Comment [PC1]: The purpose of this document was to summarize the options that the State could pursue to address the gaps in forestry management measures. CZARA requires that the gaps be addressed through either a regulatory program or voluntary program. The specific substance options in this summary discussion document are “options” not have to dos. The only have to do is to address the gaps and to do so either through a regulatory or voluntary program.

Comment [JL2]: At this point we better have more than just beliefs

Background/Context

EPA and NOAA believe have determined that Oregon’s coastal zone management measures for forestry need to be strengthened in order to assure that forest lands are being managed to achieve clean water and healthy watershed conditions. This paper describes how Oregon may strengthen its forest management measures in ways that will achieve a healthy resilient coastal environment where forest management measures satisfy the Congressional objectives of the Coastal Zone Amendment Reauthorization Act (CZARA).

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- a description of the voluntary programs, including the methods for tracking and evaluating those programs Oregon will use to encourage implementation of the management measures;
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- a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing authorities where necessary, notwithstanding the statutory “BMP safe harbor” provision in the Forest Practices Act.

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• **Riparian Protection**

- **Small and Medium Fish-Bearing Streams:** State currently pursuing regulatory program:

- Current Deficiencies/Shortfall: Inadequate riparian protections for small and medium fish-bearing streams. Available data, including Ripstream Study data and analysis, shows that current Oregon Forest Practices Act measures do not ensure that forest operations meet the Oregon water quality standards narrative criterion for protecting cold water (PCW) standard in small and medium fish-bearing streams in areas currently and historically occupied by salmon, steelhead and bull trout habitat. Unlike the PCW criterion, the CZARA program requirements are not limited to waters currently inhabited by threatened or endangered salmonid fishes, so this deficiency in protecting existing cold water applies to all small and medium fish-bearing streams in the area covered by CZARA.
- State Actions Needed: 1) **Complete riparian rulemaking by July 1, 2016;** 2) Rule should be designed to achieve-meet the PCW standard-criterion and other aspects of Oregon water quality standards in all current and historical salmon, steelhead and bull trout habitat. This may require changes to rules for stream reaches above these habitats (seen non-fish bearing streams below); and 3) The rule should also include a means to monitor whether it is succeeding in assuring that forest operations comply with the PCW standard-criterion.
- **Non-Fish-Bearing Streams: State may pursue regulatory and/or voluntary approaches:**
 - Current Deficiencies/Shortfall: Current Oregon Forest Practices Act measures may not ensure that water quality in areas subject to forest operations comply with the PCW Oregon water quality standards and protect beneficial uses. The state's measures should ensure that forest operations meet the State Oregon's water quality standards, for protecting cold water including the criterion temperature standard, and the sediment standard, including in the Coast Range area covered under by CZARA.
 - Examples of State Actions Needed: 1) **By July 1, 2016,** identify and adopt measures to ensure that the Oregon's water quality standards PCW standard is met and beneficial uses are protected, whether regulatory or voluntary (or a combination of both). 2) **By July 1, 2016,** identify and provide to NOAA and EPA the monitoring program associated with any voluntary measures, and the general authorities ODF and DEQ will rely on if voluntary measures are found to be inadequate to achieve the PCW standard on an ongoing basis. 3) **By July 1, 2016, Oregon must** demonstrate how it is showing compliance with elements of a voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs). (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).

Comment [JL3]: PCW criterion is specific to waters currently inhabited by T&E species of salmon and trout.

Ex. 5 - Deliberative

Comment [d5]: How is compliance determined? Is it buffers of a certain distance everywhere all the time or an approach that achieves the outcome of cold water and habitat?

Comment [PC6]: Compliance will depend on what sort of guidelines or requirements the State establishes and what level of flexibility it builds into those guidelines for site specific reasons. What we expect here is for the state to provide a description of the elements of the voluntary program they will adopt if they choose to go the voluntary program route.

- **Roads: Regulatory and/or voluntary approaches would need to address the following items:**

- Current Deficiencies/Shortfall:

- *Regulatory* - Recent rule changes and new policies do not sufficiently address water quality impairments associated with “legacy” roads, (i.e., roads that do not meet current State requirements with respect to siting, construction, maintenance, and road drainage) or impairments associated with the portion of the existing network where construction or reconstruction is not proposed.
 - *Voluntary* – EPA and NOAA believe have determined that the current ODF voluntary program does not adequately address legacy roads, nor has the state satisfied all elements needed for a voluntary program (see above). If it cannot be determined that the current voluntary program addresses legacy roads, The list below provides options for addressing this.

Comment [d7]: Or “it cannot be determined if the voluntary program adequately addresses legacy roads”

Comment [JL8]: I don’t get this – didn’t we already make this determination?

- Examples of State Actions Needed:

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 - *Voluntary* – **By July 1, 2016**, 1) establish a road survey or inventory program that considers active, inactive, and legacy roads that have the potential to deliver sediment to streams (i.e., similar to WA’s and ID’s); 2) develop a ranking system to establish priorities for road repair or decommissioning; 3) develop a timeline for addressing priority road issues including retiring or restoring forest roads that impair water quality; and 4) develop a public reporting and tracking component to assess progress for remediating identified forest road problems.

Comment [JL9]: We’ve already said repair or decommissioning in this sentence.

For an effective voluntary approach, all are needed as a package. The state must also meet other elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA’s 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

- **Landslides: Regulatory and/or voluntary approach would need to address the following items: [To be clarified by EPA/NMFS re relation to LWD and sedimentation concerns]**

- Current Deficiencies/Shortfall:

- *Regulatory* - Oregon’s current rules protect for public safety against shallow, rapidly moving landslides. -Oregon does not have additional

Comment [PC10]: Recruitment of LWD is an important process and landslides provide LWD. However, when forest practices generate landslides at too frequent and too massive a rate, adverse effects can occur such as fish blockage, stream blowout, and sedimentation of spawning areas. Forestry practices need to address the adverse effects of landslides.

management measures for forestry in place to protect high-risk landslide areas to ensure water quality standards are met and designated uses are protected. While ~~some level a natural rate of landslides activity may is not~~ be preventable, and some may even be desirable to provide large woody debris to enhance habitat complexity and value, there needs to be a balanced program that prevents increases in the rate of human-induced landslides activity that adds excessively silts sediment to streams or degrades streams through debris flows, impairing water quality and blocking or impairing salmon habitat.

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○ Examples of State Actions Needed:

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For all voluntary programs, the ~~s~~State must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and

Comment [WRM*G11]: Not really voluntary, and will slow down overall progress significantly.

Comment [JL12]: I agree as written this is not really voluntary – maybe it could be reworded like the

Mechanisms for State Coastal Nonpoint Source Programs
(<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).

○ **Spray Buffers for Aerial Application of Herbicides on Non-Fish-Bearing Streams: regulatory and/or voluntary approaches that could be established include the following items: [To be clarified by NMFS re why FIFRA isn't already adequate].**

○ Current Deficiencies/Shortfall:

- *Regulatory* - Oregon does not have a spray buffer to protect non-fish-bearing streams when herbicides are aerially applied.
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○ Examples of State Actions Needed: The State should establish a process to track, monitor and verify that FIFRA requirements are being followed when herbicides are applied to all streams, including small non-fish-bearing streams where currently there are no vegetation requirements in the Coast Range to protect against overspray and drift. ~~Riparian buffer protections for non-fish-bearing streams may suffice as a protective herbicide spray buffer if riparian buffer protections extend the length of the non-fish bearing stream where spraying occurs; or~~ The following are options to achieve this:

- *Regulatory* – **By [date certain]**, adopt rules for aerial herbicide spray buffers for small, non-fish-bearing streams; OR
- *Voluntary* – **By [date certain]**, 1) develop guidelines to retain vegetation around small non-fish-bearing streams; 2) monitor and track that voluntary guidelines are followed 3) identify ODF and DEQ general authorities for enforcing changes when voluntary measures are not implemented; and 4) revise the ODF Notification of Operation form to explicitly include that aerial applicators will adhere to FIFRA labels, especially for herbicides that are prohibited from use in/above waterbodies, for all stream types, including non-fish-bearing streams.

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Ex. 5 - Deliberative

Comment [JL14]: Is it all non-fish streams, or just small ones as described in the Actions below?

Comment [WS15]: Verify the implication that fish bearing streams are adequately protected.

Ex. 5 - Deliberative

Comment [PC17]: As noted above, it does not appear from our reading of the OAR regs that buffer protections are in place for small non-fish-bearing streams in the CZARA coastal area.